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10/719,879	11/20/2003	Richard Johnson	TRAN-P185	3080

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WAGNER, MURABITO & HAO LLP  
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San Jose, CA 95113

EXAMINER
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TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
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2135

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/719,879

Applicant(s)

JOHNSON ET AL.

Examiner

Thanhnga B. Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/22/03.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Thanhnga B. Truong  
AU 2135

### **DETAILED ACTION**

1. This action is responsive to the communication filed on November 20, 2003. Claims 1-23 are pending. At this time, claims 1-23 are rejected.

#### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed on December 22, 2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

#### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. *Referring to claim 22:*

Claim 22 recites "a medium or waveform containing a computer-readable set of instructions." The claim is clearly a software program and it is non-statutory as not being tangibly embodied in a manner so as to be executable. Furthermore, any intangible media such as signals, waveform, carrier waves, transmissions, optical waves, transmission media or other media incapable of being touched or perceived absent the tangible medium through which they are conveyed. Therefore, claim 22 recites a non-statutory subject matter.

#### ***Claim Rejections - 35 USC § 102***

5 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-12, and 17-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto et al (US 6,983,374 B2).

a. Referring to claim 1:

i. Hashimoto teaches a memory architecture, comprising:

(1) an unprotected memory space configured to store encrypted information, said encrypted information corresponding to a plain text version thereof (**column 5, lines 30-33 and column 15, lines 66-67 of Hashimoto**);

(2) a first protected memory space configured to store at least a subset of operating system instructions (**column 6, lines 20-29 of Hashimoto and Figures 2, 9, and 10 for memory partitioning**); and

(3) a second protected memory space configured to store said plain text version of said encrypted information (**column 10, lines 5-10 of Hashimoto and Figures 2, 9, and 10 for memory partitioning**);

(4) wherein said operating system instructions in said first protected memory space operate on said plain text version of said encrypted information in said second protected memory space (**column 9, lines 35-38 of Hashimoto and Figures 2, 9, and 10 for memory partitioning**).

b. Referring to claim 2:

i. Hashimoto further teaches:

(1) wherein said encrypted information comprises an instruction to load said encrypted information from said unprotected memory space into said first protected memory space (**column 10, lines 5-10 of Hashimoto and Figures 2, 9, and 10 for memory partitioning**).

c. Referring to claim 3:

i. Hashimoto further teaches:

(1) further comprising one or more instructions to decrypt said encrypted information in said first protected memory space to form said plain text version (**column 11, lines 21-26 of Hashimoto**).

d. Referring to claim 4:

i. Hashimoto further teaches:

(1) wherein said encrypted information comprises an instruction to store at least one of (i) said encrypted information in said first protected memory space, (ii) said plain text version in said first protected memory space, and (iii) said plain text version in said second protected memory space (**column 9, lines 35-38; column 10, lines 5-10 of Hashimoto and Figures 9 and 10 for memory partitioning**).

e. Referring to claim 5:

i. Hashimoto further teaches:

(1) wherein said unprotected memory space is further configured to store executable code and data (**column 15, lines 49-52 of Hashimoto**).

f. Referring to claim 6:

i. Hashimoto further teaches:

(1) wherein said subset of operating system instructions comprises at least one member selected from the group consisting of: fetching or pre-fetching at least part of said executable code and data; interpreting at least part of said executable code and data; translating at least part of said executable code and data; and determining whether information in said unprotected memory space comprises encrypted information (**column 10, line 56 through column 11, line 4 of Hashimoto**).

g. Referring to claim 7:

i. Hashimoto further teaches:

(1) further comprising a third protected memory configured to store said plain text version after at least one operating system instruction has operated thereon (**column 10, line 56 through column 11, line 4 of Hashimoto**).

h. Referring to claim 8:

i. Hashimoto further teaches:

(1) further including an authorization key or message digest corresponding to or associated with said encrypted information (**column 34, lines 20-25 of Hashimoto**).

i. Referring to claim 9:

i. Hashimoto further teaches:

(1) wherein said first protected memory space further comprises a table or list linking said authorization key or message digest to said plain text version in said second protected memory space **(see Figures 9 and 10 and column 15, lines 46-48 of Hashimoto).**

j. Referring to claim 10:

i. Hashimoto further teaches:

(1) wherein said table comprises a non-zero location of said plain text version in said second protected memory space **(see Figures 9 and 10 and column 15, lines 46-48 of Hashimoto).**

k. Referring to claim 11:

i. Hashimoto further teaches:

(1) wherein said first protected memory space further comprises a table or list linking a unique identifier for said encrypted information to a pointer for at least one of (i) a location of said plain text version and (ii) a location of a decryption tool for decrypting said encrypted information **(see Figures 9 and 10 and further details on column 7, lines 42-50 of Hashimoto).**

l. Referring to claim 12:

i. This claim consist a system for operating on encrypted information to implement claim 1, thus it is rejected with the same rationale applied against claim 1 above.

m. Referring to claim 17:

i. This claim has limitations that is similar to those of claims 1 and 3, thus it is rejected with the same rationale applied against claims 1 and 3 above.

n. Referring to claims 18-21:

i. These claims have limitations that is similar to those of claims 1-8, thus they are rejected with the same rationale applied against claims 1-8 above.

o. Referring to claim 22:

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i. This claim consist a medium or waveform containing a computer-readable set of instructions adapted to perform the method of claim 17, thus it is rejected with the same rationale applied against claim 17 above.

p. Referring to claim 23:

i. This claim consist a system for hiding information to implement claim 1, thus it is rejected with the same rationale applied against claim 1 above.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al (US 6,983,374 B2), and further in view of Barnett (US 6,292,874 B1).

a. Referring to claims 13-16:

i. Hashimoto further teaches:

(1) wherein said unprotected memory space comprises at least part of a hard disk; said first protected memdry space comprises at least part of a first ROM; wherein said second protected memory space comprises at least part of a second ROM; and at least one peripheral device configured to operate in accordance with said encrypted information (see Figures 1 and 2 of Hashimoto).

ii. Although Hashimoto teaches the memory architecture, which is well known in the art that could be implemented into any computer system, Hashimoto is silent on the capability to show the entire computer system which includes the microprocessor, memory, and its peripheral. On the other hand, Barnett teaches these elements (**see Figure 1 and column 3, lines 19-25 of Barnett**).

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) have modified the invention of Hashimoto with the teaching of Barnett to prevent illegal alternation of execution codes and processing target data under a multi-task program execution environment (**column 1, lines 8-10 of Hashimoto**).

iv. The ordinary skilled person would have been motivated to:

(1) have modified the invention of Hashimoto with the teaching of Barnett to protect both the internally executed algorithm and the data state inside a memory region from illegal analysis in the multi-task environment even when the execution is stopped by the interruption (**column 4, lines 58-62 of Hashimoto**).

**Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Ellison et al (US 6,633,963 B1) discloses a controlling access to multiple memory zones in an isolated execution environment (see title).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

TBT  
February 27, 2007

*Thanhnga B. Truong*  
AU2135